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Worldwide Report

TELECOMMUNICATIONS POLICY,
RESEARCH AND DEVELOPMENT

No. 159



FOREIGN BROADCAST INFORMATION SERVICE

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22 April 1981

WORLDWIDE REPORT

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'TASS,' ALGERIAN NEWS AGENCY SIGN AGREEMENT

LD131744 Moscow TASS in English 1701 GMT 13 Apr 81

[Text] Moscow, 13 Apr (TASS)--Today an agreement was signed here on expanding cooperation between the Telegraph Agency of the Soviet Union and the Information Agency Algerie Presse Service.

The agreement provides for expanding the bilateral exchange of information services by the two agencies.

On behalf of TASS, the agreement was signed by its General Director Sergey Losev and on behalf of the APS by the General Director Mohammed Belaid Usseid. Present at the signing ceremony was Algeria's ambassador to the Soviet Union al-'Ayyashi Yakir.

The sides expressed the confidence that the new agreement will serve the cause of consolidating the bilateral relations between the TASS and the APS news agencies, strengthening the friendship between the Soviet Union and the Algerian People's Democratic Republic.

During the stay in the Soviet Union at the invitation of the TASS news agency, the delegation of the leaders of the mass media of Algeria headed by the general director of the APS Mohamed Belaid Usseid visited Soviet Uzbekistan, saw the achievements of the Uzbek people in the field of industry, agriculture, science and culture, which are due to the Leninist national policy and to the friendship of the peoples of the Soviet Union. The guests from the friendly Algeria were received by the alternate member of the political bureau of the CPSU Central Committee, first secretary of the Central Committee of the Communist Party of Uzbekistan Sharaf Rashidov.

The delegation saw the sites of the Uzbek capital, Tashkent, as well as the historical monuments of Samarkand.

During their stay in Moscow the guests from Algeria visited the newspaper PRAVDA editorial board premises and the NOVOSTI press agency.

CSO: 5500

ISDS BETWEEN UAE, PAKISTAN OPENED

Karachi DAWN in English 4 Apr 81 p 4

[Text] Islamabad, 3 Apr--International Subscriber Dialing Service (ISDS), between United Arab Emirates and Pakistan was inaugurated here yesterday by a call from Mohammad Saeed Al Mulla, the UAE Minister of Communication, to Mr Mohuddin Baloch, Pakistan Minister of Communication.

The project has been completed with an amount of Rs 75 millions including foreign exchange component of Rs 50 million. Presently it has 300 channel capacity but it has the provision of expanding capacity of 900 channels.

As a part of the programme, Pakistan has also been interlinked ISDS with Saudi Arabia, France, Iran, Oman, Bahrain, Kuwait, West Germany, Italy, Switzerland, Ireland, Singapore and Japan.

Speaking on the telephone, the Communication Minister, Mr Mohyuddin Baloch, extended heartiest greetings to his UAE counterpart and hoped that the people of both brotherly countries would be benefited after the commissioning of the second phase of the programme.

The Minister also talked with Ambassador of Pakistan and Consul General in UAE.

The ISDS facility will be provided to the subscribers, connected with local telephone exchanges having Automatic Number, Identification Equipment (ANIE). The subscribers can obtain foreign call subscriber number by dialing international prefix (00), country code (CC), area code and city code, subscriber number, presently from Islamabad, Lahore, Karachi, Peshawar, Faisalabad and Quetta.

According to the officials negotiations were also in progress for having some more countries, directly connected with Pakistan through ISDS, which include United States and the United Kingdom. The country was newly switched over to electronic age and efforts were underway to modernise the communications network.

Later in talking to newsmen the Minister said that Central Telephone research Laboratory (CTRL) has been established with the cooperation of Japanese Government with an estimated cost of Rs 120 million. He said that it was unique and sophisticated project of its kind in the country which will provide necessary technical know-how. He said that T and T was working on plans to modernise its systems in a phased manner.

He said that establishment of cable factory, which has already been approved by the ECNEC, was most essential since 75 per cent of the installation depended over it. He said that the cable factory project would be a sort of joint venture between UAE and Pakistan in the private sector which will involve an approximate cost of Rs 200 million. "We have to keep up and go fast," the Minister added. --APP.

CSO: 5500

BRIEFS

ETHIOPIA, YUGOSLAVIA RADIO, TV AGREEMENT--A cooperation and aid agreement was signed today between the radio and television organizations of Socialist Ethiopia and the Federal Republic of Yugoslavia. In a ceremony held at the Ministry of Information and National Guidance, the agreement was signed on behalf of Socialist Ethiopia by Comrade Baalu Yilma, permanent secretary in the Ministry of Information and National Guidance, while Comrade (Bozo Kuchak) signed on behalf of the Federal Republic of Yugoslavia. The agreement will enable the radio and television organizations of the two countries to exchange programs and films and includes the training of technicians, aid with equipment and cooperation and aid with audio-visual aspects including films and photography. A joint film cooperation agreement to further promote knowledge about the two countries was also signed by the public relations departments of the Ethiopian television and the radio and television organization of the Federal Republic of Yugoslavia. [Excerpts] [LD301320 Addis Ababa Domestic Service in Amharic 1700 GMT 27 Mar 81 EA]

'ZANA'-'AGERPRES' AGREEMENT--The Zambia News Agency, ZANA, and the Romanian News Agency, AGERPRES, will soon start exchanging news under an agreement signed in Lusaka between the two news organizations today. The agreement entails the exchange of information between AGERPRES and ZANA without payment on an equal and reciprocal basis. [Excerpt] [Lusaka Domestic Service in English 1800 GMT 30 Mar 81]

CSO: 500

BRIEFS

DPRK, PRC SIGN BROADCASTING AGREEMENT--Beijing 10 Apr (KCNA)--An agreement on the frequencies of TV broadcasting and ultra short wave broadcasting in the Korea-China border areas between the Ministry of Communications of the Democratic Peoples Republic of Korea and the Central Broadcasting Administration of the Peoples Republic of China was signed in Beijing on April 10. The signing ceremony was attended on our side by the members of the communications delegation of our country headed by Chon Tok-Chil visiting China and the charge d'affaires ad interim of the Korean Embassy in Beijing and on the opposite side by director of the Central Broadcasting Administration of China Zhang Xiangshan and other persons concerned. The agreement was signed by the head of the communications delegation of our country and Lu Keqin, deputy director of the Central Broadcasting Administration of China. [Text] [SK120953 Pyongyang KCNA in English 0856 GMT 12 Apr 81]

CSO: 5500

BRIEFS

MARINE COMMUNICATIONS--The Harbors and Marine Department has extended its radio communication link with shipping. The department now has two radio communication systems to handle emergencies involving shipping north from the Gold Coast to the Torres Strait and the Gulf of Carpentaria. The Maritime Services Minister, Mr Bird, said yesterday an ultra high frequency network was commissioned last week. The network was designed to serve the area from the Gold Coast to Hervey Bay. "Even the remote areas now can be linked 24 hours a day to the radio frequencies patrol," he said. A new 24-hour base station for the high frequency system is planned to serve the north Queensland area. [Text] [Brisbane THE COURIER-MAIL in English 5 Mar 81 p 11]

CSO: 5500

STRIDES IN TELECOMMUNICATIONS RESEARCH NOTED

Bombay THE TIMES OF INDIA in English 24 Feb 81 p 19

[Text] New Delhi, February 23. Few engineers at the Telecommunications Research Centre (TRC) or in any of its 22 laboratories can recall the exact date the organisation was started, except that it came into existence 25 years ago.

But that is the only subject on which they could afford to be vague in any of its 22 laboratories, where high-precision work ranges from separating noise from signals to the designing of equipment for the simultaneous relay of commentaries on a number of languages over the TV network of the future.

The persistently complaining user of telephones may not be much impressed if told that these 350 engineers, whose average age is below 40, are working on a host of systems for increasing sophistication. But their contribution in the form of indigenous design of telecommunications equipment to meet the continental demands of this country should be a matter of satisfaction.

This is particularly so because of the rapid rate of obsolescence of this technology. Engineers who had left the university only a few years ago have to put in a lot of effort to keep abreast with the technology to see that their designs incorporated all the possible nuances in the field. Maybe for this reason, universities lag behind in providing the requisite backup, though Dr Swaminathan, director of the TRC, said these institutions were being given research projects to involve them in the field.

Transmission switching, electronic switching, satellite communications, the Indian crossbar project and support facilities are the major divisions on which the TRC concentrates. Considering the extent of telecommunications technology, its budget of Rs 4 crores is too small. The sixth plan provides for an allotment of Rs 50 crores for five years. Much of this amount will be spent on the purchase of test instruments.

While, for obvious reasons, much research is on telecommunications of the future, there are many areas where indigenous technology has to be developed to correct faults in the existing system. For instance, the type of insulation required to withstand pressures in humid, hot and rainy months has been under constant study. Some 200 to 300 lines pass through a single tube laid underground, vulnerable to the axe-fall of the road repair gangs and flooding. Noise has to be filtered out to let only signals pass through the lines, so that the reception is clear.

Electronic Chips

In yet another laboratory, engineers are designing electronic chips, which can replace a maze of cables, holders and the like. Little time is lost in transferring this technology to public-sector undertakings as also the private sector, which ask for its use in commercial production.

All the other facilities, like STD, telex, the push button circuits from transmitting newspapers by facsimile in India as also for international communications have been provided by the TCR. [as published]

Work in the TCR has also led to industrial spin-off. For instance, a particular type of compressor for cable testing has not been made in India before. But after the TCR began work in that field, it commissioned a Delhi firm of engineers to provide one. The prototype has, since, been accepted and the firm could go in for commercial production of that type. There are also numerous other items assigned to the small-scale sector, particularly in the area of data transmission.

The engineers concede that there is a long way to go to catch up with the west, but the necessary know-how has already been acquired, as for example, in making mobile telephones (which can be fitted in cars and trucks. But it is obvious that the TCR needs more inputs, like additional manpower, infrastructural facilities, large computers and intensification of the inter-action between the TCR and Indian universities. [as published]

With the increased application of technology, hopefully, a time will come, sooner than later, when services may provoke fewer complaints. For, while much of the work is highly sophisticated and technical, there are areas where the benefits are direct and immediate to the user.

One such case is the automatic trunk ticketing. The present form of billing for local and subscriber-dialed trunk calls is known as bulk billing. All calls are now registered in terms of local call units on individual subscribers' meters in the telephone exchange. Details of STD calls made by subscribers are not available separately. The TCR is in the advanced stage of developing equipment which will record all details on a magnetic tape that will be further processed by a computer into bills.

Challenging Task

The rural electronic exchange, designed to meet the requirements of small clusters of villages has already been designed and is likely to go into regular production.

TCR designs have been used in the country's first electronic exchange, located in the Rajouri Gardens. Apart from the physical advantage that it covers only a fraction of the space required for conventional exchanges, new facilities have been made available. Using these facilities, a subscriber can obtain any number in New Delhi, or as available on STD by dialling only a two-digit code or can obtain access to any pre-specified number without dialling.

Perhaps, the most challenging task undertaken by the TRC is in respect of satellite communications. Work has considerably advanced to meet the requirements of the Indian satellite that will go up in 1982. The group is finalising its test schedules.

An interesting satellite facility on which work is in progress is to relay TV commentaries to any number of stations within the country simultaneously, in the languages of the area.

CSO: 5500

DETAILS OF PLANNED IDA TELECOMMUNICATIONS LOAN TOLD

Madras THE HINDU in English 28 Feb 81 p 6

[Text] New Delhi, Feb. 27. The International Development Association (IDA), the soft-lending associate of the World Bank, is giving a credit of \$314 millions (about Rs. 251.20 crores) for the development of telecommunications in India. The agreement will be signed within the next four to six weeks in Washington.

The loan, repayable in 50 years in equal half-yearly instalments beginning May 15, 1991, will carry no interest, but a nominal service charge of 0.75 per cent per year on the amount of credit withdrawn and outstanding from time to time.

Among other things, the credit is for setting up (I) an electronic switching factory at Palghat, the foreign exchange cost of which is \$12.8 millions, (II) a new cable factory at Hyderabad, with a foreign exchange component of \$25.5 millions and (III) a new electronic teleprinter factory at Hosur (\$ 6.5 millions).

A special feature of the credit is that for the first time IDA is giving a loan for setting up new manufacturing units in the telecom sector. With this, the total World Bank and IDA credit for the development of telecommunications in India comes to \$802 millions.

The IDA credit will help the P and T Department to proceed with its modernisation programme, already initiated. Out of a total of \$26.2 millions earmarked for this purpose, the Indian Telephone Industries will get \$12.3 millions, the Hindustan Cables \$11.3 millions and Hindustan Teleprinters, Madras \$2.6 millions.

Of the \$243 millions being provided under the present IDA credit for telecommunication facilities \$163 millions will be for the purchase of raw materials and components by the ITI, HCL and HTL for manufacture of equipment for the P and T department. The largest share of \$84.5 millions will go to ITI followed by \$77.2 millions to HCL and \$1.3 millions to HTL.

The balance of \$80 millions will be utilised for the import of equipment.

CSO: 3500

IDA CREDIT FOR TELECOMMUNICATIONS REPORTED

Madras THE HINDU in English 20 Mar 81 p 6

[Text]

NEW DELHI March 19

India will be getting a credit of \$314 million (about Rs. 2012 crore) from the International Development Association (IDA), the out-standing affiliate of the World Bank for the expansion of its telecommunication network.

India will also be getting another credit from the IDA for \$140 million (about Rs. 112 crore) for a composite medium irrigation project in Madhya Pradesh.

Both the credits are repayable in 50 years including a ten-year grace period and are interest free. But they carry a 0.75 per cent service charge per year to cover IDA's administrative expenses.

The credit for the expansion of the telecommunication network will cover the three-year period 1981-83. The total cost of the expansion programme is estimated at Rs. 3,440 crore.

The credit will finance the foreign exchange cost of the expansion of telecommunication facilities by the installation of additional local telephone switching equipment, about 630,000 additional direct exchange lines, 11,000 new long-distance public call offices, 12,000 telegraph offices, about 1,600 new rural telephone exchanges, and about 8,000 new tele subscriber facilities.

The long-distance telephone system will also be improved through the use of satellite communications, digital microwave radio systems and other digital transmission media. New technologies to expand telecommunication facilities to rural areas and to backward, hilly and tribal areas will be favoured with a view to developing suitable alternative technologies.

New Postboxes The public sector units which will implement the project by upgrading and modernisation of

the existing production facilities are the Indian Telephone Industries Limited (ITI), Hindustan Cables Limited and Hindustan Telephones Limited, each of which will have a new factory. The ITI is setting up an electronic switching production facility at Pimpri, the HCL will have a new unit at Hyderabad and the HTL will have an electronic telephone factory at Hapur.

The expansion projects have as one of the objectives a major improvement in the quality of service in smaller towns and district centres. On the completion of the expansion programme, about 40 million people in the smaller towns and villages will have access to telephone facilities for the first time.

The proposed 11,000 additional rural public call offices, 1,600 new small rural exchanges and 403,000 new direct exchange lines, allocated to district centres and to cities other than Bombay, Calcutta, Delhi and Madras will stimulate economic development outside the major metropolitan areas, encourage decentralisation and reduce costs of transport and communication.

The IDA credit to the composite medium irrigation project in Madhya Pradesh will finance part of the cost of construction of 25 to 30 medium irrigation projects with a combined service area of about 107,000 hectares over a period of five years from 1981 to 1985. Each of the project areas will have a storage dam with spillway,

a fully lined canal network and drainage network.

The irrigation project provides for the installation of equipment to improve hydrological data base for the planning of large major and medium irrigation projects, water management, training of project management staff, technical services for the planning and design of the distribution system and demonstration farms for irrigated agriculture.

The project is expected to step up production of foodgrains, oilseeds, spices, long staple cotton and garden crops. It will provide additional year-round employment to landless labour

and small farmers. Net farm incomes are expected to rise by about 430 per cent for the average farm.

Precautions have been taken to minimise the risk of malaria and water-borne diseases. The use of fertilisers and pesticides is not expected to have significant environmental impact, since the project areas are relatively small and spread throughout the State.

CSO: 5500

BRIEFS

NEWS AGENCY USES SATELLITE--The United News of India has become the first Indian news agency to have an exclusive satellite channel to carry news abroad. The agency today commissioned a satellite channel to transmit news to mass media in Gulf countries. So far the news was sent by Telex and air mail. [Text] [Delhi Domestic Service in English 1530 GMT 1 Apr 81]

SATELLITE COMMUNICATIONS LINK--The government is planning to link all Indian missions abroad through a satellite communications system to keep them informed of developments inside the country and abroad within the shortest possible time. Already Indian missions in North and South America have been linked by a satellite system. [Text] [Delhi General Overseas Service in English 1000 GMT 24 Mar 81 BK]

ANDHRA RADIO, TV STATIONS--The all India radio station at Cuddapah is to be upgraded from the present 20 kilowatts to 100 kilowatts in the sixth plan period. Stating this in the Lok Sabha during question time, Minister of Information and Broadcasting Vasant Sathe said that the Hyderabad TV center will be upgraded into a full-fledged program station. [Delhi Domestic Service in English 0830 GMT 31 Mar 81 BK]

CSO: 5500

BRIEFS

TELEPHONE LINK ESTABLISHED--A direct telephone link between Pakistan and the United Arab Emirates was established this afternoon. The communications ministers of the two countries talked to each other on the phone on the occasion. [Karachi Domestic Service in Urdu 1500 GMT 1 Apr 81 GF]

CSO: 5500

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

ZHEJIANG MICROWAVE COMMUNICATIONS--In a recent nationwide appraisal of microwave relay sections, the microwave relay section between Zhejiang's Hangzhou and Jiangsu's Yixing was rated a 1980 national level advanced relay section in microwave communications. At present, Zhejiang Province's six TV channels and the facsimile relay of RENMIN RIBAO's "Cankao Xiaoxi" [reference information] are transmitted by microwave. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 3 Apr 81 OW]

CSO: 5500

SRI LANKA

BRIEFS

NEWS ACCORD WITH 'PTI'--Sri Lanka's national news agency LANKAPUWATH signed an agreement with Indian news agency PTI on 12 April providing for the exchange of news, features and technical facilities. LANKAPUWATH news agency has already signed agreements with TANJUG, AFP, the Interpress Services and NOTIMEX news agency of Mexico. [BK140439 Colombo International Service in English 1045 GMT 13 Apr 81]

CSO: 5500

VIETNAM

BRIEFS

BINH TRI THIEN RADIO NETWORKS--Binh Tri Thien Province has expanded its wired radio and broadcasting networks to all localities. For the past 3 years the provincial broadcasting station has continued to provide listeners with four programs daily, disseminating the party's line and policies to the masses. Binh Tri Thien has also increased the number of wired radio stations from 50 to 138 and the number of loudspeakers from 2,000 to over 30,000. [BK251057 Hanoi Domestic Service in Vietnamese 0400 GMT 25 Mar 81]

CSO: 5500

SANTA CLARA RADIO STATION INCREASES PRESENT CAPABILITY

La Paz PRESENCIA in Spanish 28 Feb 81 p 8

[Text] RADIO SANTA CLARA, the property of the religious group of the Santa Maria Magdalena de Sorata Parish, is performing a work of support for a program on integral development called "Ukhamapan" (So be it) which is being undertaken by the Sorata Savings and Loan Cooperative Inc.

It was founded on 21 December 1977.

Its basic mission is support of the Ukhamapan Project through a programing aimed at the teaching of methods for improving crops, livestock, health and housing conditions.

Its programing, which lasts 6 hours per day, includes informational messages of improvement for women and pastoral and educational matters in general.

Its hours of transmission are from 0500 to 0800 in the morning and from 1800 to 2100 at night. Programs are broadcast in Spanish and Aymara (70 percent in Aymara and 30 percent in Spanish).

This information was provided to PRESENCIA by Eduardo Rojas, chief of operations of that station, and by Vilma Velasco Rivas (administration and announcing) during a visit made to the locality of Sorata from which RADIO SANTA CLARA operates.

After several transactions by the officials of that station with the authorities of the government, a Ministerial Resolution was obtained which authorizes RADIO SANTA CLARA to increase its power by means of the installation of a 2.5 kilowatt transmitter. At this time it broadcasts its programs with one kilowatt of power. The installation of the new equipment will be concluded in a month and a half.

It has 11 people: Franciscan Father Roberto Evert is the manager; Eduardo Rojas, chief of operations; Vicente Quispe, chief of programing; Desiderio Flores, in charge of pastoral programs; Vilma Velasco, announcing and administration; Demetrio Uri, programs on cooperativism; Apolinar Condori, programs on livestock and agriculture; Simeon Quispe and Natalio Lucana, health programs, the latter is also an announcer; Carlos Perez is the driver and Nora Mejia de Perez, the secretary.

The installations of RADIO SANTA CLARA are being expanded and improved. The construction of an auditorium is scheduled.

It now has two recording and announcing studios, a production room, record library, a diner for personnel and a budding library.

It is an affiliate of ERBOL (Bolivian Radio Schools). In addition to supporting the Ukhamapan Project, it cooperates with the Tupac Katari Hospital of Sorata and with all the state agencies located there by broadcasting their messages.

After the installation of its new equipment, RADIO SANTA CLARA will cover all the first section of Larecaja Province with its broadcasts. It can only cover 11 cantons with its present power.

The equipment of RADIO SANTA CLARA DE SORATA may be seen in the photograph.

8908

CSO: 5500

SOUTHERN MICROWAVE SYSTEM NEARS COMPLETION

Presencia LA PAZ in Spanish 25 Feb 81 p 8

[Text] The microwave system to the south, which will carry communications from the departments of Chuquisaca, Tarija and Potosi, will be completed by July of this year and available, therefore, for the interconnection of communications on a national and international level, it was announced by the general manager of the National Telecommunications Company [ENTEL], Col DIM Jorge Orellano.

As he explained, the first phase was the introduction of the microwave transmission system, which is already in operation but which should be complemented with automatic telephone switching.

Long distance direct dialing for those departments will be made available to public service in a progressive manner, depending, said the general manager of ENTEL, on the facilities provided by the local telephone companies in each of those districts. He said that ENTEL now provides telephone, telegraph, telex, data transmission, facsimile and radiobroadcasting and television programs.

The departments in the southern part of the country will be fully integrated into the International Traffic Center and the Tiahuanacu Satellite Communications Station by means of the microwave system, with the possibility of establishing high reliability communications immediately with any part of the world.

The total capacity of the microwave system to the south is exactly the same as that of the Trunk Network, which means 960 telephone channels. The installation of those modern systems for important national localities, he said, also entails the construction of modern, comfortable and functional buildings, which are already in the completion phase.

He said that in order to install the microwaves to the south, ENTEL had to install 12 repeaters which generate their own electric power, and it had to take charge of the construction of civil projects and first quality access roads which should be permanently maintained.

He pointed out the fact that the establishment of microwaves to the south allows the interconnections of the Bolivian networks with the Argentine within a short time, with all the advantages that it obviously supposes. He said that ENTEL estimates that the interconnection could go into operation by the end of the year.

At the same time, he announced that the service that ENTEL provided for the soccer game between the Bolivian and Brazilian teams last Sunday was faultless, which deserves the praise it received from reporters of the international press. He said that ENTEL provided radiobroadcasting services to 19 Brazilian stations and four television channels of that neighboring country and one in Venezuela. It also leased a large number of channels for telegraph, telex and photo transmission to many news agencies of Brazil and other nations interested in that sports news.

8908

CSO: 5500

SEVENTY-TWO TOWNS INTEGRATE RURAL ELECTRIFICATION SERVICE

La Paz PRESENCIA in Spanish 25 F. 81 p 8

[Text] Authorities of the prefecture of the department, Ministry of Energy and Hydrocarbons and National Electric Power Company (ENDE), inaugurated the rural electrification service in the town of Pucarani, capital of Los Andes Province in the department of La Paz.

The ceremony was held with the attendance of the residents of the locality "who in a massive gathering received electric power for their benefit," it was reported.

The personal representative of the prefect of La Paz Department, Col Guido Suarez Castellon, threw the main switch of Pucarani and after this ceremony the visitors were declared "Illustrious Guests" by the mayor of the town, Sabino Zeballos.

Speeches

The subprefect of Los Andes Province, Secundino Rivero, pointed out in his speech the endeavors of the present government authorities "to accomplish a project which was at a standstill for 5 years."

The representative of the prefect and director of public works of the prefecture of the Department of La Paz, said: "Ceremonies such as that which took place in Pucarani are phases of work and for making contact with the residents to learn of their needs and to resolve their problems." He congratulated the townspeople "for the effort made for the accomplishment of the project," and asked them "to redouble your efforts so that other nearby towns will follow the path of progress implicit in the availability of electricity."

Up to now there are 72 rural towns which have been provided with electric power, with 3,862 members in the Electric Power Rural Cooperative (CORELPAZ). In the case of Pucarani, the prefecture contributed 80,000 Bolivian pesos for the acquisition of 20 street lights.

8908

CSO: 5500

BRAZIL

BRIEFS

RADIO LICENCES GRANTED, REVOKED--President Figueiredo today signed several decrees authorizing the operation of several radio stations: Radio (Artinas) Limitada has been granted a licence to operate a medium wave station with a regional reach in Rondonia territory; Radio (Perida) Limitada has been authorized to operate medium wave station with a regional reach in Olimpia, Sao Paulo state; and Radio Difusao Santa Ritense Limitada, which is operating a radio station in Santa Rita do Sapucaí, Minas Gerais state, has been authorized to increase its power output. President Figueiredo also signed the decree which revoked the licence of Radio Caceta de Alagoas, which had been operating in Maceio, Alagoas state. [PY081305 Brasilia Domestic Service in Portuguese 2200 GMT 7 Apr 81]

CSO: 5500

'GUYANA NEWS AGENCY' OUTLINES OPERATIONAL PLANS

Teleprinter Network

Georgetown GUYANA CHRONICLE in English 2 Mar 81 p 3

[Text] The GUYANA NEWS AGENCY (GNA) is to set up a teleprinter network in its bid to cover all developments in the country and to offer the highest possible service to the Guyanese people, Courtney Gibson, Editor-in-Chief of the Agency said on Saturday. He was delivering a brief outline of the type of service the agency intended to provide while speaking at the launching of the Agency. The agency was launched by Prime Minister Ptolemy Reid.

He said that the officials of the Guyana Telecommunication Corporation (GTC) gave the assurance that the setting up of the teleprinter network in Berbice, Essequibo and Linden would be done shortly.

Cde Gibson said that apart from teleprinters in a number of areas there will be correspondents in other areas so that the developments in rural areas would be properly covered.

He told the gathering that the main objectives of the News Agency were to:

- Channel overseas material to the local media, decision makers and other relevant public offices in Guyana and through its missions overseas and to the public outside Guyana.

- Gathering information about developments in Guyana, particularly in areas outside of the city, and disseminate same to the Guyanese people in the form of news and feature articles via the print and broadcast media and provide an editing service, eventually, for overseas material to give them a Third World orientation and make them more meaningful to the Guyanese readership.

News Agreements

Georgetown GUYANA CHRONICLE in English 28 Feb 81 p 15

[Excerpts] (GNA)--The GUYANA NEWS AGENCY (GNA) comes into operation today and will from now on issue regular bulletins from its foreign, city and rural desks.

The news agency will be linked by teleprinter to the Guyana, National Newspapers Limited and the Guyana Broadcasting Corporation.

GNA will place much emphasis on rural coverage with a view to improving the flow of news from the rural areas to the city.

In keeping with this aspect of GNA's operations, a national network will be set up whereby the regions will be linked, by teleprinter, with the central operations in Georgetown.

Editor-in-chief Courtney Gibson today disclosed that GNA will be moving shortly to expand its services by appointing correspondents in the Caribbean.

Earlier, in outlining the operations to his staff, he said that GNA had agreements with two international news agencies--INTER-PRESS SERVICE (IPS) Third World with headquarters in Rome and ASSOCIATED PRESS (AP) based in New York.

And, information Minister Frank Campbell, in a brief rap session with the fourteen staff members of the News Agency, emphasised that GNA was not set up merely to replace the CARIBBEAN NEWS AGENCY whose services to the Guyana Broadcasting Corporation, Guyana National Newspapers and the Ministry of Information end at midnight on Tuesday, January 6.

According to Minister Campbell, the GNA would have been established, anyhow, in keeping with the Guyana Government's firm commitment to the establishment of a New International Information and Communication Order.

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ADVANCED DIGITAL SWITCHING SYSTEM PLANNED

Bahrain GULF MIRROR in English 13 Apr 81 p 1

[Article by Sheila Richardson]

(Text)

COMPUTERS will be waking up Bahrainis in the summer through a new communication system bound to make the rest of the world wide-eyed.

The innovative technology now being set up at the telephone company makes Bahrain one of the only countries with this and other space-age services.

The automatic wake-up calls will be free.

They and other new facilities will come about when the complex technology known as "digital switching" starts working in Manama.

Said the government's expert advisor on telecommunications, William Yandell: "This new technology is a quantum step forward for Bahrain."

Futuristic

"The island is now not only the top communications centre in the Gulf, but is also way ahead of most of North America and Europe.

"The system is so futuristic it's near impossible to explain it to the layman," added Mr. Yandell.

But sense can at least be made of the end-products of the new equipment, said the communications expert in a

speech to the Executive Luncheon Club in Bahrain's Ramada Hotel.

Switch-over

He told the businessmen they could soon order "hot lines" that would connect them instantaneously to associates at the press of a button.

Using one telephone to talk to several parties at once will be a simple matter when an automatic system for conference calls is installed.

For the businessman who hates being tied to his desk, the telephone company will soon supply an automatic call transfer service.

"Say someone's leaving the office to go and visit a neighbour.

"He just has to plug his neighbour's number into the telephone company's computer bank, and his calls will automatically be switched over to him — no need to leave messages with a secretary," said Mr. Yandell.

The telephone computer can also break into telephone conversations with a quick buzz should it detect that someone is trying to get through on an engaged line.

Cumbersome locks for telephones can also be thrown away when a free computer-controlled block on outgoing

calls is hooked up for use upon request.

Even telephone bills will be altered with the advent of the new services.

Separate bill

International dialled calls will no longer be bulk-billed along with local message unit charges.

Instead, every international call will be shown separately on the bill, showing date of the call, place and number called, the duration of the call, and the amount of the call charges.

Mr. Yandell said that, apart from a better service for telephone users, the new digital switching system will give the telephone companies better control over their operations and will also help to reduce costs.

He said that studies have shown that this sort of computerisation can cut staff requirements by as much as 20 per cent — even in the office.

"Every firm in Bahrain should be thinking about how to combine communications and computer technology to reduce cost and improve efficiency.

"People say there are bad things as well as good things about computerisation, but this is the way of the future," said Mr. Yandell.

BRIEFS

SHIRAZ ISLAMIC SOCIETIES MARCH--The Union of Islamic Societies of Shiraz has asked all its members to participate actively in the procession to be held on 1 April, the day of the inception of the Islamic revolution. The employees of telecommunications factories in Iran have announced their readiness to participate in the grand procession of 1 April to celebrate the occasion. [Text] [GF291830 Shiraz Domestic Service in Persian 1530 GMT 29 Mar 81]

FARS TELEPHONE EXCHANGES--The telephone exchange in Babamonir in the center of Mahur Milati District has begun operation in the presence of the director of telecommunications of Fars Province and the supervisors of Mamasani District. The telephone exchange in Fahlian has also started functioning. [GF071720 Shiraz Domestic Service in Persian 1530 GMT 7 Apr 81 GF]

KAZERUN TELEPHONE LINK--The automatic telephone units of Seyyed (Hoseyn) and the environs of Kazerun went into operation with a telephone conversation between the Kazerun Friday Imam and an official at the postal, telegraph and telephone (?office). The long distance telephone units of the village of Birkeh (Kishk) and the environs of Kazerun have also begun functioning. Rural residents can now make direct telephone calls to all cities in Iran. [GF071116 Shiraz Domestic Service in Persian 1830 GMT 6 Apr 81 GF]

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SENEGAL

BRIEFS

SPACE SHUTTLE COMMUNICATIONS--An earth station which will relay communications during the American space shuttle flight, has been inaugurated in Gandoul, Senegal. The station comprises a spiral antenna system and a building with a command console and transmitter/receivers. During the space shuttle flight, scheduled for 10 April, the Gandoul station will relay 10 to 12 minutes of information by radio telephone to NASA, when the spacecraft flies over Africa. [Text] [AB071312 Paris AFP in French 1050 GMT 7 Apr 81]

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HIGH TEMPERATURE SOLAR OVEN IN YEREVAN

Moscow IZVESTIYA in Russian 8 Feb 81 p3

[Article by A. Blokhin, special correspondent to IZVESTIYA: "At the Focus of the Sun's Rays"]

[Text] The International Conference on Photoelectrochemical Conversion of Solar Radiation is beginning work at the Yerevan Research Center for the Use of Solar Energy of the Scientific Production Union "Kvant." This meeting of scientists from eight countries is being held in accordance with the plan for the participation of the USSR in UNESCO measures and the USSR Academy of Sciences plan for scientific and technical cooperation with foreign countries.

The temperature this February in Yerevan is barely above zero, and yet the sun is shining as if it were summer. Frozen puddles and occasional snowflakes sparkling in the green of last year's grass do not disturb the work of the people whose activity seems somehow associated with summer's heat.

A man wearing dark protective glasses turns a knob with a quick, sure motion, and the 1.5 meter mirrored "eye" on the experimental installation turns toward the sun. The concentration of senior scientific worker M. Shekoyan -- who is preparing the solar oven for the next melt -- is now concentrated on a small round opening. When the small round spot of sunlight appeared in the center of the field, Shekoyan removed a metal door from a small crucible containing a densely-packed white mass, whereupon the melt began. Sparks flew with a crackle from the crucible, and there was a smell of something burning.

I had barely managed to take a few photos by the time the melt was finished. Mikhail was using tongs to hold the crucible: it was painful to look at its molten center.

"In a minute," says laboratory chief K. Madatyan, candidate of physical-medical sciences, "we have obtained several grams of so-called beta-aluminum oxide -- a substance which is very difficult to synthesize in ordinary ovens. Two conditions are needed to form it: an abrupt temperature jump and sterile cleanliness. The solar oven satisfies both of these conditions. The rate of the 'thermal shock'

in it exceeds 1,000 degrees per second, and contaminants from the form (which must be used with any other melting methods) are prevented by the fact that the concentrated solar ray melts the substance within a narrow zone -- in a form, so to speak, made of the same material."

The distinctive property of materials obtained through solar methods is their high degree of purity. These materials are providing new capabilities for technology. The substance of beta-aluminum oxide is not simply the fruit of an exotic experiment. Membranes made of this material help in the creation of powerful electrochemical systems capable, for example, of bringing life to the long-awaited electric car.

High temperature solar installations provide the capability of obtaining especially pure glass for fiber optics, which is in itself a whole revolution in communications practice: elimination of expensive and not especially reliable wire systems, and the appearance of telephones with ideal audibility.

Investigations of the processes of melting of high-heat materials carried out by the Yerevan scientists in small solar installations are opening the way for experimental-industrial solar metallurgy.

Several tens of rungs of a steep metal ladder lead to an enclosure whose walls are now only suggested by steel posts. This area will house the main control panel of a large solar oven with a 10-meter mirror. A large silvery cap suspends the mirror over a narrow "captain's bridge," at the end of which -- in the focus of the sun's rays -- will be the scientists' main smelting shop. The rays travel to a height of 30 meters from the flat surface of the heliostat, which lies at the foundation of the installation and has an automatic sun tracking system; then, gathered into a bundle a little less than 40 centimeters in diameter, the rays are passed to the scientists' workbench. The calculated temperature of the "spot" is 2,500 degrees.

"High temperature solar installations," says Yerevan Solar Center NPO "Kvant" Chief A. Vartanyan, "is only one of the areas in which we are conducting research. Incidentally, others are involved as well: Yerevan has been selected as the main experimental base for the solar engineers of the SEV [Council of Mutual Economic Aid] member countries. One important topic which is now the subject of an exchange of opinions at the International Scientific Conference is the direct conversion of solar energy to electricity.

It remains primarily for scientists to develop a unified work methodology which will allow them, so to speak, to speak the same language. Specialists from Hungary and Czechoslovakia worked on corrected programs along with Soviet investigators last year at the Yerevan solar installation.

Man has long used solar energy stored in fuel in the form of photosynthesis products. However, the efficiency of the "solar energy-photosynthesis-fuel-electricity" cycle is very low, comprising no more than 0.01 percent!

The method which is most efficient, and has been validated in operation on the ground and in space, is the photoelectric method of direct conversion using solar batteries made of semiconducting silicon. One hundred-twenty experimental solar electric power stations are already in operation in the USSR. Such an SES [solar electric power station] is also in operation at Yerevan. Several frameworks, which are actually honeycombs, are made up of photoelectric cells -- semiconducting elements fashioned into long narrow strips and soldered into protective glass envelopes. Their calculated service life is at least 30 years.

This power station will require practically no servicing labor for that many years.

"The primary task of specialists working in solar energy," concludes A. Vartanyan, "is to reduce significantly the cost of semiconducting silicon components and to increase the efficiency of the installations. The problem of direct utilization of the sun's energy will soon move from the sphere of research to the sphere of basic energy problems."

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